

2 - 643 Rec'd PCT/US

19 AUG 1994

I claim:

1. A therapeutic composition selected from the group consisting of those useful as an antimicrobial, keratolytic, adjuvant to the therapeutic actions of an other therapeutic agent, or vulnerary, suitable for administration by injection into areas of tissue infected with disease, or other injury in humans or animals comprised of:

a therapeutically suitable carrier containing a compound selected from the group consisting of those possessing apparent antimicrobial, keratolytic, adjuvant, or vulnerary properties obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an analogous synthetic equivalent thereof in an effective amount.

2. The composition of claim 1, wherein the area of tissue is selected from the group consisting of blood, spinal fluid, skin, deep tissue, lungs, brain, bones, liver, kidneys, heart, and other internal organs.

3. The composition of claim 1, wherein the disease is caused by a microorganism selected from the group consisting of fungi, bacteria, viruses, rickettsia, and parasitic worms.

4. A therapeutic composition useful as an antimicrobial suitable for topical, or oral administration to areas of tissue infected with diseases that are caused by microorganisms selected from the group consisting of fungi, rickettsia, parasitic worms, or the strains of bacteria that infect the skin, or vagina of humans or

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animals comprised of:

a therapeutically suitable carrier containing a compound possessing apparent antimicrobial properties obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of a compound that contains an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an analogous synthetic equivalent thereof in a therapeutically effective amount.

5. A therapeutic composition useful as an antimicrobial for topical administration to areas of tissue infected with disease caused by viruses in humans or animals comprised of:

a therapeutically suitable carrier containing a compound possessing apparent antiviral properties obtainable from a water, an alcohol, or an other solvent extraction of a component of a pepper plant species, or a component of an other plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an analogous synthetic equivalent thereof in an effective amount.

6. cancelled and incorporated into claim 5

7. A therapeutic composition selected from the group consisting of those useful as a vulnerary, or adjuvant to the therapeutic actions of an other therapeutic agent suitable for topical, or oral administration to areas of tissue infected with disease, or other injury in humans or animals comprised of:

a therapeutically suitable carrier containing a compound selected from the group consisting of those possessing apparent vulnerary, or adjuvant properties obtainable

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from a water, an alcohol, or an other solvent extraction of a component of a pepper plant species of the piperacea family, or a component of an other plant species similarly having a suitable quantity of an analog of piperidine (Fig. 7), as are found among said pepper plant species, or an analogous synthetic equivalent thereof in a therapeutically effective amount.

8. A composition as in any one of claims 1, or 7, wherein the injury is selected from the group consisting of wounds, lacerations, burns, abrasions, and contusions.

9. A therapeutic composition useful as a keratolytic for oral administration to humans or animals in the treatment of skin diseases that result in abnormal proliferation of keratin, and scaling comprised of:  
a therapeutically suitable carrier containing a compound possessing apparent keratolytic properties obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7), as are found among said pepper plant species, or an analogous synthetic equivalent thereof in a therapeutically effective amount.

10. A therapeutic composition useful as a keratolytic suitable for topical administration to humans or animals in the treatment of skin diseases that result in scaling, and other abnormal proliferations of keratin comprised of:

a therapeutically suitable carrier containing a compound possessing apparent keratolytic properties obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3),

or an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an analogous synthetic equivalent thereof in a therapeutically effective amount.

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15. A therapeutic composition selected from the group consisting of those useful as a keratolytic, or vulnerary suitable for administration to areas of the skin infected with disorders selected from the group consisting of acne, or wrinkles in humans or animals comprised of:

a therapeutically suitable carrier containing a compound selected from the group consisting of those possessing apparent keratolytic, or vulnerary properties obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of a compound that contains an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7), as are found among said pepper plant species, or an analogous synthetic equivalent thereof in a therapeutically effective amount.

16. A therapeutic composition useful to relieve itch discomfort of the skin of humans or animals comprised of:

a therapeutically suitable carrier containing a compound possessing apparent antiitch properties obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of a compound that contains an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an analogous synthetic equivalent thereof in a therapeutically effective amount.

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2 - 68 03 Rec'd PCT

AUG 199

17. A composition as in any one of claims 15, or 16, wherein the administration is selected from the group consisting of injection, topical, or oral administration.

18. Cancel (duplicate of 7).

19. A composition as in any one of claims 1, or 7, wherein the therapeutic actions include facilitating the delivery of the therapeutic agent by increasing the permeability of a cellular membrane.

20. The composition of claim 19, wherein said cellular membrane is selected from the group consisting of those that comprise blood vessels, skin, damaged tissue, tissue serums, mononuclear cells, leukocytes, and a pathogen.

21. The composition of claim 20, wherein said pathogen is a drug resistant strain.

22. The composition of claim 7, wherein the therapeutic agent is an immune response.

23. The composition of claim 22, wherein the immune response is inflammation.

24. The composition of claim 7, wherein the other therapeutic agent is a tissue serum.

25. The composition of claim 24, wherein the tissue serum is selected from the group consisting of mononuclear cells, and leukocytes.

26. The composition of claim 7, wherein the therapeutic agent is a drug.

27. The composition of claim 7, wherein the therapeutic agent is antimicrobial.

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28. The composition of claim 7, wherein the therapeutic agent is antifungal.

29. A composition as in any one of claims 5, 6, 9, 10, 15 or 16, wherein said compound adjuvates another compound having similar properties.

30. A composition as in any one of claims 4, 7, 9, or 17, wherein the administration is selected from the group consisting of a tea, tincture, gargle, infusion, mouth rinse, powder, oleoresin, or food additive.

31. A composition as in any one of claims 1, 4, 7, 9, 10, or 16, wherein the diseases are selected from the group consisting of superficial mycoses, and dermatophytoses.

32. The composition of claim 31, wherein said superficial mycoses infect areas of tissue selected from the group consisting of the nails, skin, hair, mucosa, vagina, and rectum.

33. The composition of claim 31, wherein said superficial mycoses are selected from the group consisting of candidiasis, tinea, tinea pedis, tinea corporis, tinea capitis, and tinea cruris.

34. A composition as in any one of claims 1, 4, 7, 9, 10, or 16, wherein the diseases include deep tissue, or systemic mycoses.

35. The method of claim 34, wherein said deep tissue mycoses are selected from the group consisting of candidiasis, aspergillosis, actinomycosis, blastomycosis, coccidioidomycosis, cryptococcosis, torulosis, histoplasmosis, nocardiosis, paracoccidioidomycosis, and entomophthoromycosis.

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36. A composition as in any one of claims 1, 4, 7, 9, 10, or 16, wherein the diseases include systemic bacterial infections.

37. A composition as in any one of claims 1, 4, 7, 9, or 16, wherein the diseases are selected from the group consisting of tuberculosis, and staphylococcus.

38. A composition as in any one of claims 1, 4 - 7, 9, 10, or 16, wherein the diseases include warts.

39. A composition as in any one of claims 1, 4 - 7, or 16, wherein the diseases result in scaly skin.

40. A composition as in any one of claims 9, 10, or 16, wherein the areas of the skin are infected with disorders selected from the group consisting of eczema, dermatitis, seborrhea, dandruff, psoriasis, or microbial infections.

41. A composition as in any one of claims 7, 9, or 10, wherein said abnormal proliferation of keratin is selected from the group consisting of warts, corns, callouses, tumors, cancers, and hardened growths of keratin.

42. A composition as in any one of claims 1, 4, 7, or 10, wherein the diseases are selected from the group consisting of cellular mutations, abnormal proliferations of tissue, cancers, and neoplasms.

43. A composition as in any one of claims 4 - 7, 10, or 16, wherein the carrier for topical administration is selected from the group consisting of a lotion, cream, tea, ointment, shampoo, tincture, infusion, poultice, powder, aerosol, bath, drops, plaster, oleoresin, douche, vaginal, or rectal suppository, water, alcohol, vinegar, aloe vera, or an article of clothing.

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44. A composition as in any one of claims 4 - 7, 10, or 16, wherein the carrier for topical administration is selected from the group consisting of an article of clothing, underwear, socks, shoes, and shoe liners.

45. A composition useful for inducing eye, skin, or respiratory discomfort in humans and animals for the purpose of discouraging their occupation of a given area comprised of:

Ins a' a suitable carrier containing an irritant compound obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7), as are found among said pepper plant species, or an analogous synthetic equivalent thereof distributed in vapor form by means of a device particularly well suited for producing said vapor, in an effective amount.

46. A therapeutic composition useful as an antimicrobial suitable for administration to areas of tissue infected with disease caused by microorganisms in plants comprised of:

a therapeutically suitable carrier containing a compound possessing apparent antimicrobial properties obtainable from a water, an alcohol, or another solvent extraction of a component of a pepper plant species of the solanacea family such as is available from a common commercial grade of oleoresin made therefrom, or a component of another plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3) as are found among said pepper plant species, or an analogous synthetic equivalent thereof in an effective amount.

47. A therapeutic composition useful as an antimicrobial suitable for administration to areas of tissue infected



03 Rec'd PCT/US

19 AUG 1994

2 - 72

with disease caused by microorganisms in plants comprised of:-

a therapeutically suitable carrier containing a compound possessing apparent antimicrobial properties obtainable from a water, an alcohol, or another solvent extraction of a component of a pepper plant species of the piperacea family, or a component of another plant species similarly having a suitable quantity of an analog of piperidine (Fig. 7), as are found among said pepper plant species, and within said compound, or an analogous synthetic equivalent thereof in an effective amount.

48. A composition useful as an antimicrobial, or preservative suitable for administration to areas of inanimate objects infected with microorganisms comprised of:

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a suitable carrier containing a compound possessing apparent antimicrobial, or preservative properties obtainable from a water, an alcohol, or another solvent extraction of a component of a plant of the pepper species, or another plant species similarly having a component that contains a suitable quantity of an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an analogous synthetic equivalent thereof in an effective amount.

49. The composition of claim 48, wherein the inanimate objects include paintings, and artifacts.

50. A composition useful as an insecticide suitable for killing, or injuring insects comprised of:

a suitable carrier containing in major portion a compound possessing apparent insecticidal properties that is a mixture of compounds obtainable from a water, an alcohol, or another solvent extraction of a component of a pepper plant species of the solanacea family, or a component

of another plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3) as are found among said pepper plant species, or an analogous synthetic equivalent thereof, in an effective amount.

51. A composition useful as an insecticide suitable for killing, or injuring insects comprised of:  
a suitable carrier selected from the group consisting of water, alcohol, vinegar, acetic acid, or aloe vera containing in major portion an effective amount of a compound possessing apparent insecticidal properties obtainable from a water, an alcohol, or another solvent extraction of a component of a pepper plant species of the piperacea family, or a component of another plant species similarly having a suitable quantity of an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an analogous synthetic equivalent thereof, administered by means selected from the group consisting of irrigation, aerosol, or spray.

52. A composition as in any one of claims 50, or 51, wherein the insect destroys crops.

53. A composition useful as a repellent suitable for administration to crops for the purpose of preserving them from the destructive influences of animals selected from the group consisting of livestock, cattle, herd animals, food animals, rodents, and birds and comprised of:

a suitable carrier containing in major portion a compound possessing apparent repellent properties that is a mixture of compounds obtainable from a water, an alcohol, or an other solvent extraction of a component of a plant of the pepper species, or a component of an other plant species similarly having a suitable quantity of an analog of vanillyl (Fig. 3), or an analog of piperidine (Fig. 7) as are found among said pepper plant species, or an

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9 AUG 1994

analogous synthetic equivalent thereof in an effective amount.

*Ins a'* 54. A composition as in any one of claims 46 - 48, wherein the microorganisms are selected from the group consisting of fungi, bacterial, or viruses.

*pub B* 55. A composition as in any one of claims 45 - 47, 48, 50, or 53 wherein said carrier is selected from the group consisting of alcohol, ethanol, acetone, chloroform, ether, water, vinegar, acetic acid, tincture, tea, irrigation water, oleoresin, a mix containing about 40% water and 60% ethanol together, liquid drops, powder, aerosol, aloe vera gel, tear gas-like canister, or spray.

*17* 56. A composition as in any one of claims 1, 4, 7, 9, 10, 16, 45 - 47, 48, 50, 51, or 53 wherein said other solvent is selected from the group consisting of ethanol, acetone, chloroform, ether, vinegar, acetic acid, tincture, aloe vera, or a mix containing about 40% water and 60% ethanol together.

*18* 57. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45, or 53 wherein said animals are selected from the group consisting of livestock, cattle, herd animals, herd animals, and food animals.

*19* 58. A composition as in any one of claims 45, or 53 wherein said animals are selected from the group consisting of livestock, cattle, herd animals, food animals, rodents, insects, birds, and crop destroying animals.

59. A composition as in any one of claims 1, 4, 6, 9, 10, 15, 16, 45, or 53, wherein said pepper species includes those of the solanacea family.

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1993

2 - 75 03 Rec'd

60. A composition as in any one of claims 1, 4, 6, 9, 10, 15, 16, 45, 46, 50, or 53, wherein said pepper species includes those of the genus capsicum.

61. The composition of claim 60, wherein said species of the capsicum genus includes those selected from the group consisting of the frutescens, annuum, baccatum, or longum species.

62. A composition as in any one of claims 1, 4, 6, 9, 10, 15, 16, 45, or 53, wherein said pepper species includes those of the piperacea family.

63. A composition as in any one of claims 1, 4 - 7, 9, 10, 15, 16, 45, or 53, wherein said pepper species includes those of the piperacea family.

64. The composition of claim 63 wherein said piperacea family includes those of the genus peperoma.

65. The composition of claim 63 wherein said piperacea family includes those of the genus piper.

66. The composition of claim 65 wherein said species of the piper genus include those selected from the group consisting of the nigrum, retrofractum, or longum species.

67. A composition as in any one of claims 1, 4 - 7, 9, 10, 45, 46, 48, 50, and 53, wherein said plant species that contains an analog of vanillyl include those of the Zingiberacea family.

68. The composition of claim 67, wherein the Zingiberaceae species are selected from the group consisting of those of the genus Zingiber, Elettaria, Curcuma, Aframonum, or Euphorbia.

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69. The composition of claim 67, wherein the Zingiberaceae species are selected from the group consisting of Zingiber officinale, Elettaria cardamomum, Curcuma longa, Aframonum melegueta, Euphorbia pulcherrima, or Euphorbia resinifera species.

70. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45, 46, 48, 50, and 53, wherein said plant species that contains an analog of vanillyl includes Eugenia aromatica.

71. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45 - 48, 50, 51, or 53, wherein said compound is pungent.

72. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45 - 48, 50, 51, or 53, wherein said compound is a hydrolyte.

73. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45 - 48, 50, 51, or 53, wherein said wherein said component is selected from the group consisting of the fruit, seeds, leaves or stems, roots, or rhizomes.

74. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45, 46, 48, 50, and 53, wherein said compound is an analog of vanillyl (Fig. 3).

75. The composition of claim 74, wherein said analog of vanillyl (Fig. 3) is an analog of gingerol (Fig. 11).

76. The composition of claim 75, wherein said analog of gingerol (Fig. 11) is selected from the group consisting of analogs of shogaol (Fig. 11), paradol, zingerone, curcumin, or eugenol (Fig. 9).

77. The composition of claim 74, wherein said analog

03 Rec 1

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2 - 77

of vanillyl (Fig. 3) is an analog of vanillylamide (Fig. 5).-

78. The composition of claim 77, wherein said analog of vanillylamide (Fig. 5) is an analog of a capsaicinoid (Fig. 6).

79. The composition of claim 78, wherein said analog of a capsaicinoid (Fig. 6) is selected from the group consisting of capsaicin (Fig. 6), dihydrocapsaicin, norcapsaicin, nordihydrocapsaicin, homocapsaicin, homodihydrocapsaicin, N-vanillyl-nonamide, nonanoic acid, vanillylamide, decanoic acid, vanillylamide, resiniferatoxin (Fig. 12), and tinyatoxin (Fig. 13). analog.

80. The composition of claim 72, wherein said hydrolyte is a capsaicinoid (Fig. 6) hydrolyte.

81. The composition of claim 80, wherein said capsaicinoid (Fig. 6) hydrolyte is selected from the group consisting of methoxyhydroxybenzylamine (Fig. 4), and isodecylenic acid.

82. A composition as in any one of claims 1, 4 - 7, 9, 10, 15, 16, 45, 47, 48, 51, and 53, wherein said compound is an analog of piperidine (Fig. 7).

83. The composition of claim 82, wherein said analog of piperidine (Fig. 7) is selected from the group consisting of piperine (Fig. 8), chavicine, piperidine, piperettine, piperolein A, piperolein B, and piperanine.

84. The composition of claim 72, wherein said hydrolyte is a piperine (Fig. 8) hydrolyte.

85. The composition of claim 84, wherein said piperine

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(Fig. 8) hydrolyte is selected from the group consisting of ehavivic acid, and piperic acid.

86. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45 - 48, 50, 51, or 53, wherein said compound is an amide.

87. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45 - 48, 50, 51, or 53, wherein said compound is selected from the group consisting of antioxidants, vitamins, vitamins A, B complex, B<sub>1</sub>, B<sub>2</sub>, C, D, E, mineral salts, iron, potassium, naicin, aromatic amines, phenols, amino phenols, oxidants, citric acid, carotenoids, capsanthin, capsorubin, and lipids.

88. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45, 48, 50, 51, or 53, wherein said compound is a phytoalexin.

89. The composition of claim 88, wherein the phytoalexin is capsidiol.

90. A composition as in any one of claims 1, 4 - 7, 9, 10, 16, 45 - 48, 50, 51, or 53, wherein said effective amount within said carrier is equivalent to at least an infusion, a 3:1 tincture, a powder of ground spice, or a commercial grade of oleoresin.

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